

THE AVIATION FORCE MODERNIZATION PLAN

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Author's Note: The following article contains excerpts and paraphrased portions from the March 2000 Aviation Force Modernization Plan (AFMP) and is only intended to provide an overview. Key objectives of the AFMP, which are consistent with those of the Army modernization strategy, are as follows:

- Transform to meet future warfighting requirements;
- Maintain legacy warfighting capabilities through overmatch, digitization, and recapitalization; and
- Focus science and technology (S&T) efforts to enable timely fielding of the objective force.

Introduction

The AFMP supports the Army transformation by establishing objectives and conditions for continued modernization. Simultaneously, the AFMP emphasizes reduced operations and sustainment costs, recapitalization, improved safety, interoperability, survivability, and refines the aviation force structure. The AFMP addresses the "total Army" to include the Active and Reserve components, and sets forth a sound modernization approach supporting national military strategy, Joint Vision 2010, and the Army vision.

The resulting aviation force structure and capabilities will provide the interim and objective force with the lift, maneuverability, situational awareness, and firepower required to win on any battlefield.

Force Structure

The AFMP defines an objective force structure to meet the Army's goals for strategic responsiveness. Army aviation will move to a four-helicopter fleet: RAH-66 (Comanche), AH-64D (Apache Longbow), UH-60 (BLACK HAWK) variants, and CH-47F (Chinook). Representing a significant departure from the current "pure-fleet" battalions, the aviation multifunctional battalion (MFB) will be the basic warfighting unit under the objective force structure. MFBs and divisional aviation support battalions will have the capability to detach a company-sized task force to conduct autonomous operations while the parent unit operates in a split-based manner from a distant location. In short, MFBs will allow offensive operations to be conducted while providing an asymmetric capability for mobile strike and air maneuver operations.

Transition To Objective Force

The plan identifies a strategy to achieve the objective force. Unlike the Army's ground force, aviation does not have an "interim aircraft." Thus, aviation must transform directly from a legacy fleet to an objective fleet along with modifying the associated force structure. In the near term, the transitional force will begin taking shape in FY02 by establishing authorization levels at 80 percent of the Table of Organizations and Equipment requirement and by using AH-64As

and OH-58Ds to fill reconnaissance slots in the aviation brigades until fielding of the Comanche. According to the strategy, all AH-1s will be retired by the end of FY01, and both OH-58Cs and UH-1s will be retired by FY04. Retirement of AH-1s is enabled by providing OH-58Cs to the Army National Guard divisional attack and cavalry units to maintain aviator proficiency until fielded with AH-64s by FY04.

In the midterm, as the Army continues to divest legacy systems, Flight School XXI must be fully implemented, and the Army must continue to convert to MFBs. Flight School XXI will realign flight training to meet warfighting requirements by producing aviators who arrive at their initial duty station basic-mission qualified, proficient in their "go-to-war" aircraft, and ready to begin unit training. To accelerate aircraft retirement, the Army will supply Active components at 80 percent of attack/reconnaissance and utility aircraft requirements. The Reserve component will be provided with UH-60s and AH-64s, but will be resourced at approximately 80 percent of utility and 23 percent of attack/reconnaissance requirements until Comanche is fielded.

In the far term, the Army will complete the transition to the MFB and fielding of the objective force structure requirements. The attack/reconnaissance force in the Corps and the Active component divisional aviation brigades will be at 100 percent of the objective force

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requirement by FY15; the Reserve component by FY18.

The AFMP addresses modernization requirements in each key mission area of the objective force: reconnaissance and security, attack, utility and medical evacuation (MEDEVAC), and cargo.

Reconnaissance Fleet

The current fleet of reconnaissance aircraft consists of the OH-58D Kiowa Warrior—a remanufactured OH-58C with target acquisition, avionics, and weapon system upgrades. The OH-58D was designed to bridge the gap until Comanche is fielded. The first of the 387 OH-58Ds in the fleet turn 20 years old in FY06. The Kiowa Warrior safety enhancement program provides minimum improvements to keep the aircraft viable on the battlefield until it is retired. OH-58Ds will be completely replaced by Comanche by FY13. Comanche is an armed-reconnaissance, light-attack helicopter that can perform missions throughout the spectrum of conflict. It provides enhanced survivability, maintainability, lethality, and unprecedented situational awareness. Comanche will also provide tactical targeting, prioritization, and threat information to commanders at all levels. The expected objective Comanche procurement is 1,213 aircraft.

Attack Fleet

The attack fleet today consists of Apache AH-64As and AH-64Ds, which provide unprecedented survivability,

firepower, and capability to fight worldwide, day or night, in adverse weather, and on obscured battlefields. The AH-64D Longbow's millimeter-wave fire control radar, radar frequency interferometer, fire-and-forget radar-guided HELLFIRE missile, and cockpit management and digitization enhancements give the Army attack helicopter technological superiority well into the 21st century. Program Objective Memorandum (POM) 01-05 limited funding provides for 530 Longbow production units, leaving more than 200 AH-64As in the fleet. The objective force design and transition plan retains 743 AH-64s and moves toward a full conversion of the AH-64As to the AH-64D configuration. Recapitalization assessments to ensure reliability are ongoing, as are required priority upgrades to the AH-64D fleet, including second generation forward looking infrared radar, advanced rotor and drive systems, modern aircraft survivability equipment, and digitization. In the far term, the 600 AH-64Ds remaining in the fleet reach their replacement point in FY20. Alternatives are a new-start attack aircraft, an upgraded RAH-66, or remanufacture of the AH-64D.

Utility Fleet

The utility/MEDEVAC fleet consists of various models of the UH-60. The UH-60L, a UH-60A upgraded with modern avionics and medical equipment, is programmed to begin in FY02 and continue through FY07. This aircraft will

provide "first-to-fight" units with the world's most advanced battlefield MEDEVAC helicopter. (The MEDEVAC mission equipment package will be applied to the UH-60M when the "M" version is available.) The foremost priority in the UH-60 fleet is the UH-60M recapitalization program.

FY03 marks the culmination of the research, development, test, and evaluation efforts and the beginning of UH-60M production. The program will extend the service life of UH-60As and UH-60Ls through the FY25 timeframe and address cockpit improvements necessary to achieve interoperability with ground forces. The Army objective is conversion of 60 UH-60As per year by FY06, the minimum rate required to offset additional fleet aging. The objective number of UH-60 aircraft is 1,437. The UH-60X modernization program will satisfy the objective force range and 10,000-pound lift requirement with a new propulsion and drive system. The UH-60X will also incorporate mission equipment upgrades to include modern aircraft survivability equipment and crashworthy auxiliary fuel tanks.

Cargo Helicopter

The Army's cargo helicopter, the CH-47, is currently being revamped via a recapitalization program that includes an engine upgrade and partial rebuild of the CH-47D to the CH-47F improved cargo helicopter. These efforts buy back CH-47D lift capabilities, insert digital

capabilities, and extend aircraft life by approximately 20 years until the future transport rotorcraft is developed and fielded. The engine upgrade will be applied fleetwide to restore lift capabilities lost through years of aircraft weight gain from modifications and engineering change proposals. The CH-47F modifications are planned for 300 of the 431 aircraft fleet. Another priority CH-47 upgrade requirement is the insertion of modern aircraft survivability equipment.

Interoperability

Command and control platforms and avionics programs must meet combined arms and joint requirements for command and information interchange and target handover and be compatible, interoperable, and supportable. The Army has defined specific milestones, outlined in the Army Digitization Master Schedule (ADMS), to achieve digital capabilities. The first division (4th Infantry Division) was digitized in FY00, the second division (1st Cavalry Division) will be in FY03, and the first corps (III Corps) by FY04. Most aviation digitization programs were initiated prior to ADMS, and their schedules are subject to funding and production constraints. Army aviation has critical communication needs and has approved procurement of systems such as the Improved Data Modem, the Joint Tactical Radio System, and ARC-220 High Frequency Radio to address these deficiencies. Additionally, as early as 2003, Army aircraft will be mandated to comply with global air traffic management (GATM) requirements in Europe followed by other geographical regions. Funding is in place to meet 2003 GATM requirements.

The requirements in the battlespace for seamless sensor-to-shooter connectivity and the Tactical Internet demand compatibility between a maneuverable airborne command vehicle and the Tactical Internet. This will ensure full exploitation of aviation resources.

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Weapon System Modernization

Also addressed in the plan is weapon system modernization, which is essential to maintain or improve system capabilities against an emerging threat and to provide for aircraft self-protection. Major weapon system modernization programs include the Longbow HELLFIRE missile, the modernized HELLFIRE, improvements to the Air-to-Air Stinger missile, and the Advanced Precision Kill Weapon System.

Logistics

The objective plan for Army aviation logistics focuses on transitional force recapitalization and modernization and provides the roadmap to full-spectrum logistical versatility. Future aviation logistics will incorporate total automation, strategic modularity, multifunctionality, and a reduced footprint. The plan for aviation logistics will capitalize on the efficiencies, effectiveness, and advancements in equipment, training, and logistical technologies.

Technology Insertion

Also addressed in the AFMP are S&T programs that are needed to develop new aircraft to meet the evolving mission requirements imposed by a changing world situation. Future Army missions will require aircraft capable of flying farther, flying longer, carrying more, surviving more robust and dispersed threats, defeating a wider spectrum of targets in a more varied environmental and topographical setting, and imposing less logistical demands on supply and maintenance resources. To meet these goals in a timely and cost-efficient manner requires an adequate and well-managed S&T effort.

Summary

The AFMP aligns the aviation strategy with the Army vision. Force structure requirements are modified to ensure MFBs meet the needs of Army division requirements and allow divestiture of legacy aircraft. An overall reduction in the number of rotary-wing aircraft, a corresponding reduction in subsystem requirements, and the accelerated retirement of legacy aircraft will allow realignment of aviation funding to help support aviation modernization objectives. While the strategy to achieve the objective force requires significant resourcing commitments, the transition strategy provides an executable interim plan to move aviation toward this goal.

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